

**Department of Chemistry
Institute of Science
Banaras Hindu University, Varanasi 221005**

15.7.2026

Advertisement for Junior Research Fellow (JRF) in ANRF sponsored project

Applications are invited from eligible candidates for **ONE** temporary position of **Junior Research Fellow** in an Anusandhan National Research Foundation (ANRF) sponsored research project under Principal Investigator Dr. Kanak Roy, Assistant Professor, Department of Chemistry, Institute of Science, Banaras Hindu University on or before **15th August 2026**.

Project Title	Development of Atomically Dispersed Metals on Oxide Solid-Solution Catalysts for Thermocatalytic Hydrogenation of CO ₂ to Green Methanol
Project description	The project involves designing chemical synthetic strategies for preparation of atomically dispersed metal on oxide solid-solutions as catalysts for CO ₂ hydrogenation to methanol. It requires screening of suitable support materials (oxide solid-solutions) and noble or non-noble metal promoters for superior CO ₂ to methanol conversion through thermocatalytic route. The catalytic activity and stability of the heterogeneous catalysts will be tested for the single pass direct CO ₂ hydrogenation in a continuous-flow fixed-bed catalytic reactor. In-situ spectroscopic techniques like ambient pressure x-ray photoelectron spectroscopy (APXPS), x-ray absorption spectroscopy (XAS), and diffuse reflectance infrared Fourier transform spectroscopy (DRIFTS) will be used to examine the structure-activity relations in the catalysts.
Funding Body	Anusandhan National Research Foundation (ANRF) File no ANRF/IRG/2025/002002/CS
Duration	3 years (The post is purely temporary and co-terminates with the project.)
Job Role	The role of the JRF will be to design and perform experiments, analyse results, write reports and manuscripts, and participate in collaborative in situ studies.
Essential Qualification	M. Sc. in Chemistry with at least 55% aggregate marks (or equivalent grade) and have qualified UGC/CSIR NET or GATE.
Desirable Qualifications	Candidate with prior experimental research experience in heterogeneous catalysis is preferred. Practical experience in XPS, Scanning/Transmission Electron Microscopy is preferred.
Fellowship/ Stipend	1st and 2nd year salary: ₹ 37,000/- p.m. + HRA. 3rd year salary: ₹ 42,000/- p.m. + HRA.
Age Limit	The upper age limit is 28 years and other selection criteria for this fellowship (JRF) are as per rule of ANRF and Government of India. (5 years age relaxation for SC/ST/PH candidates)
Procedure to apply	Motivated candidates are requested to submit their applications ONLINE along with all supporting documents via Google Form link https://forms.gle/JvNxtucj3oXgy7UG7
Interview	Only shortlisted candidates will be called for an interview in-person/online. The date of the interview will be communicated via email. No TA/DA will be paid for the interview. Candidates called for the interview should bring the original certificates/degrees for verification.

Last date of application: 15.08.2026


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